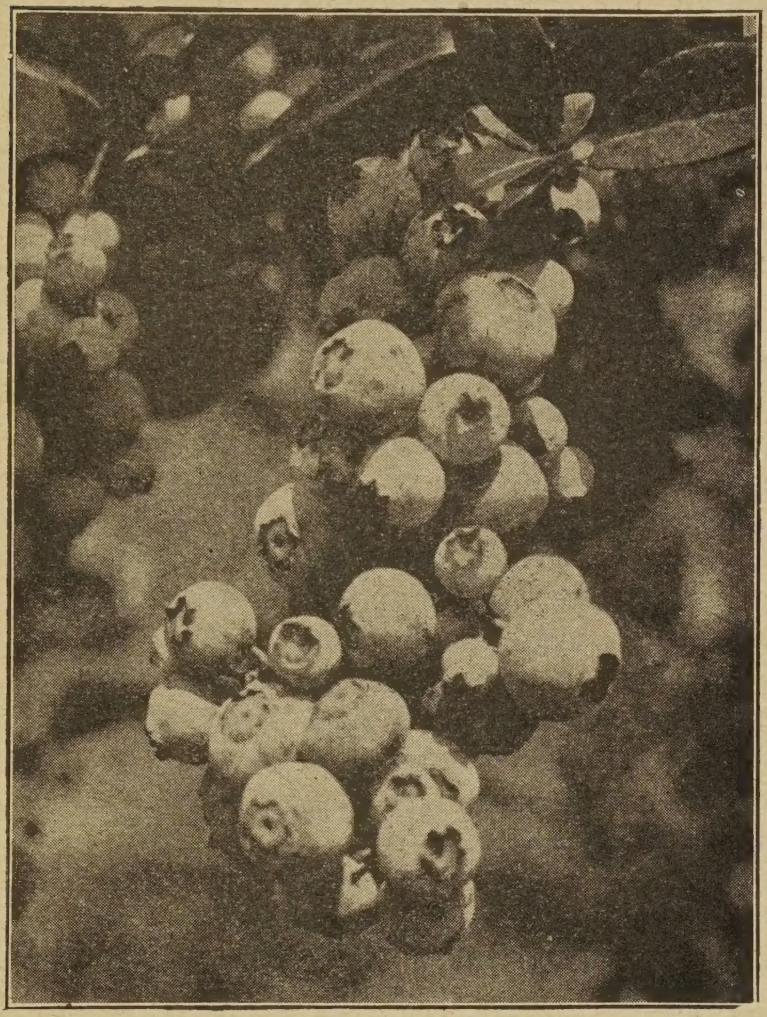
THE HYBRID
BLUEBERRY



BLUEBERRY

JOSEPH G. O'NEILL & SON

Office:
P. O. Box 32
Moorestown, N. J.

Nursery:
Buck Run Plantation
Browns Mills, N. J.

The Hybrid Blueberry

Requirements - Soil Preparation - Planting After Care - Propagation

The term "blueberry," applied to wild plants, has different meanings in different places. In connection with garden or commercial berry growing and in this leaflet, it refers to the high-bush or swamp blueberry (*Vaccinium corymbosum*), and particularly to improved, named varieties which, developed by selection and hybridization, can be bought like other nursery stock. However, plantations can be made of collected wild plants chosen for their vigor and productivity and the size and quality of their fruit.

Blueberries are native to a large part of North America, especially the northern and eastern region. They grow in acid soils of sandy type, rich in organic matter mainly (peat moss) and well supplied with moisture throughout the growing season, but where the water table is not high enough to prevent aeration of the roots. Another essential is the presence of a certain soil fungus which promotes the growth of the plants through a "symbiotic relationship" with the roots. This factor cannot be supplied by man, but develops under favorable conditions.

If the conditions described are provided, blueberries can be grown outside their natural range and in a variety of soils, so long as they are not on the alkaline side or of a stiff, clay type. They do best in full sun, but give fair results in light shade, which may even be an advantage in the South.

Soil Preparation. Unless there is good drainage, install tile drains 18 in. to 24 in. below soil level. A natural sand-peat soil mixture is best, but organic matter can be supplied as commercial peat moss, partly rotted leaves (preferably oak), pine needles, sawdust, spent tan bark, or other vege-

table waste. *Do not use manure.* State agricultural experiment stations and county agricultural agents will make acidity tests. If these show a pH reaction higher than 4.5, acidify the soil by adding more acid peat or other organic material, or applying aluminum sulphate or fine dusting sulphur. The amount needed will be indicated by the test.

Dig the soil at least 12 in. deep. Or, if more convenient, trenches that deep and 3 ft. or 4 ft. wide can be dug and filled with the recommended soil mixture.

Planting. A blueberry plant will not pollinate itself, so a planting should include specimens propagated from at least two different parent plants; alternating rows of two or more varieties is a still better arrangement.

Plant blueberries in early spring or September and October. Spacing as wide as 8 ft. by 8 ft. is sometimes advised, but in gardens, plants can stand 3 ft., by 4 ft. or 5 ft. apart. Do not let the roots dry out and keep as much soil around them as possible. Set plants ½ in. or so deeper than they stood before, firm soil well but not so as to injure the fine roots and, after half filling the hole with soil, fill it with water and let this soak in before finishing the job. Then spread around the plants a 6 in. mulch of loose, absorbent material: leaves, straw, grass clippings, old shavings, excelsior, etc. Add to it yearly as the under part rots into the soil, and shake it up occasionally to prevent its matting down. In dry locations, set plants a few inches below soil level and fill the depression around them with the mulch.

After Care. Commercial plantings are often kept cultivated from the time growth starts until late summer; as the plants are shallow-rooted the soil must not be stirred more than 2 in. deep. In gardens, mulching makes cultivation unnecessary and keeps the soil moist and cool.

Where there is plenty of organic matter, blueberries need little additional food. Organic fertilizers, such as cottonseed meal and dried blood, can be applied at the rate of ½ lb. per plant and, on commercial fields, a chemical fertilizer mixture of acid reaction is often cultivated in just after blossoming time. One such mixture, used at the rate of 400 lbs. per acre, consists of nitrate of soda 100 lbs., finely ground phosphate rock 260 lbs., sulphate of potash 40 lbs.

Removal of the first crop of flowers promotes plant growth, but no other pruning is called for until the bushes are bearing well, about the third or fourth year. Thereafter, in winter, old woody stems that have borne several crops should be cut back to the ground, the center of the bush opened up slightly, and weak, twiggy growth removed.

In proper locations, blueberries do not need watering. If the leaves turn brown and wither around the edges, indicating insufficient moisture, soak the soil to a depth of 6 in. every week or so. If the summer foliage shows a reddish or purplish tinge, excess water and the need of better drainage is indicated.

Propagation. Nursery grown plants with compact root systems are best. But wild ones can be transplanted and cut back severely. If desired, they can, when established, be grafted or budded. Desirable plants can sometimes be increased by cutting the tops close to the ground and mounding the stubs 2 in. deep with a 4-1 sand-peat mixture kept moist. If new shoots develop roots in this medium, they can, the next spring, be removed, headed back to three buds, and planted in 3 in. pots. Put in a greenhouse or frame shaded from direct sunlight and kept at about 65 deg. F.; keep them moist and moderately ventilated, and as soon as they show a second growth of twigs, you can consider them safely started.